REMARKS/ARGUMENTS

In an Advisory Action dated August 26, 2009, the Examiner advised that a Response to Final Office Action filed July 31, 2009, would not be entered because it would require further consideration and, possibly, further search. This Preliminary Amendment Accompanying Request for Continued Examination is substantially identical to the Response to Final Office Action filed July 31, 2009, and consideration of this Amendment is respectfully requested.

The Examiner is thanked for the courteous telephone interview granted Applicant's representative on July 13, 2009. During the interview, a proposed amended claim 1 was discussed. The Examiner suggested a further amendment to the claim, and also indicated that the claim appeared to distinguish over the cited art.

Claims 1-3 and 6-9 are pending in the present application. Claim 1 was amended, and dependent claims 4 and 5, as well as withdrawn claims 10 and 12-24, were canceled. No claims were added. Support for the claim amendments can be found in the specification, for example, in paragraphs [0033] and [0034], and in the original claims. Reconsideration of the claims is respectfully requested in view of the above amendments and the following comments.

I. Double-Patenting

The Examiner has provisionally rejected claims 1-9 on the ground of nonstatutory obviousness-type double patenting over claims 1-11 of copending application number 12/205,573.

In rejecting the claims, the Examiner states:

> Claims 1-9 of this application conflict with claims 1-11 of Application No. 12/205573. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.
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> Claims 1-9 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-11 of copending Application No. 12/205573. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

> The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a system comprising an ultrasonic cutting tool with a tip, anvil, and grooves surface in alignment with the tip
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> Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Final Office Action dated June 22, 2009, pages 2-3.

In the Advisory Action dated August 26, 2009, the Examiner advised that the Terminal Disclaimer filed on July 31, 2009, was not approved because Form PTO/SB/25 should be used. In Response, a new Terminal Disclaimer is filed herewith.

Therefore, the provisional rejection of the claims based on obviousness-type double patenting has been overcome.

II. 35 U.S.C. § 103, Obviousness

The Examiner has finally rejected claims 1 and 5-8 under 35 U.S.C. § 103 as being unpatentable over Bell et al., U.S. Patent No. 5,265,508 (hereinafter "Bell"), in view of Hreha, U.S. Patent No. 4,077,290 (hereinafter "Hreha"), and in further view of Miller, U.S. Patent No. 5,028,052 (hereinafter "Miller"), and Backlund, U.S. Patent No. 4,060,017 (hereinafter "Backlund"). This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

> Bell discloses a system comprising: an anvil (T-shaped member, 72; Figure 9-10) and a ultrasonic blade (ultrasonic cutting tool, 4), the anvil for providing support to a backed ply material during a cutting operation by the ultrasonic blade (4), the back ply material traveling in a first direction(towards the blade), the ultrasonic blade having a cutting profile (blade 46), the ultrasonic blade being operable to travel along a cutting path (along channel 73) the cutting path being orientated in a transverse manner relative to the first direction, wherein the anvil comprises a rigid base (bottom of T-shaped member) for securing the anvil to a cutting assembly; an inverted channel (channel 73) in the rigid base and coinciding with the cutting path; an insert (Lexan plastic strip 74) to mate with the channel; a surface (top of insert) on the insert to support the backed ply material, the surface being secured to the base (72); and a groove (impression by cutting

blade) disposed upon the surface and coinciding with the cutting path (see col. 9, lines 38-48), the groove having a curved profile corresponding to a tip portion (46) of the cutting profile, the groove providing support during the cutting operation, wherein a backing of the backed ply material is urged into the groove during the cutting operation.

To the extent that it can be argued that the blade does not create a groove, or impression in the surface during the cutting action, it is further noted that Bell discloses that within the channel (73), as previously disclosed as the third surface, that a Lexan plastic strip 74 can also be employed along the cutting axis. Lexan plastic is a polycarbonate resin thermopastic well known as a trademarked material for its strength and impact resistance. Providing a strip of the plastic under the ultrasonic cutting blade provides an impact resistance strip that be easily removed and exchanged as it becomes worn out. Although thermoplastic materials are high molecular weight plastics, whose importance was established by the applicant's specification, to the extent that it can be argued that Bell does not specifically point out how this plastic strip is intended or would function under pressure of the ultrasonic blade, attention is first directed to Miller in evidentiary support that Lexan plastic is capable of deforming under pressure, as similar to applicants insert. Miller discloses a golf mat that also utilizes a sheet of Lexan plastic to form the base member. Miller discloses that although the Lexan base member is self supporting, it will deform if a load is placed thereon. Thereby, Miller provides evidence that should impact upon the Lexan plastic strip occur, it would be expected for the sheet to deform. Furthermore, evidencary evidence is also shown by Backlund, in that plastic materials are known to function in a protective, deformable manner. Backlund discloses a similar situation in which a cutting blade (16) is being employed against an anvil surface (14). Backlund discloses the use of a film (24) to protect the anvil surface from being marred by the cutting blade. This film can be one of number of suitable deformable materials; such as polyethylene, polyproplyene, polyamides, polytetrafluroethylenes, and the like. Backlund discloses that when the cutting blade contacts the film, the film is deformed, creating a groove the shape of the cutting blade, this protects the underneath supporting anvil surface. Thereby, Miller provides evidence that should impact upon the Lexan plastic strip occur, it would be expected for the sheet to deform as similarly shown by Backlund, as was its obvious purpose in the Bell anvil. Therefore, to the extend that it can be argued that Bell does not specifically state that the Lexan plastic strip is for providing a deformable material, such that should the blade contact the plastic a groove would occur, it would be obvious to one having ordinary skill in the art to employ the blade to make contact with the plastic strip such that the material was completely severed and the both the anvil and cutting edge were protected. The deformation creating a groove complimentary to the profile of the ultrasonic cutting blade and providing a third surface along the strip at a third height capable of being relatively below the first height and the second height to support the backed ply material.

Furthermore, Bell does not disclose that the channel is an inverted "T" shape, nor that the insert is also "T" shaped. However, attention is directed to

Hreha that discloses another insert possessing an inverted T-shape that mates with a corresponding inverted -T shaped channel. Hreha discloses that providing inserts of a variety of shapes (see at least Figure 2 and 7) is well known in the art as they allow the insert to be removably secured within the channel. T-shaped inserts unlike rectangular inserts hinder the movement of the insert in the forward direction. It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the inserts of Weeks to comprise a T-shape as taught by Hera as T-shaped inserts are old and well known in the art for improvements in more secure, yet detachable connections.

In regards to claim 5, the modified device of Bell discloses wherein the insert (74) comprises a compliant material (Lexan plastic).

In regards to claim 7, the modified device of Bell discloses wherein the insert (74) comprises a polymeric material (Lexan plastic).

In regards to claim 8, the modified device of Bell discloses wherein the polymeric material comprises an ultra high molecular weight polymer (Lexan plastic is a high molecular weight polymer).

Final Office Action dated June 22, 2009, pages 4-7.

Claim 1, as amended herein, is as follows:

1. A system having an anvil and an ultrasonic blade, the anvil for providing support to a backed ply material during a cutting operation by the ultrasonic blade, the backed ply material comprising a ply material and a backing, and traveling in a first direction, the ultrasonic blade having a cutting profile, the ultrasonic blade being operable to travel along a cutting path, the cutting path being oriented in a transverse manner relative to the first direction, the anvil comprising:

a rigid base for securing the anvil to a cutting assembly;

an inverted "T" shaped channel in the rigid base and coinciding with the cutting path;

a "T" shaped insert to mate with the channel;

a surface on the insert to support the backed ply material; and

a groove disposed upon the surface and coinciding with the cutting path, the groove being formed in the insert prior to any cutting operation by the ultrasonic blade and having a curved profile corresponding to a tip portion of the cutting profile of the ultrasonic blade, the groove providing support for the backing of the backed ply material during the cutting operation, such that the backing of the backed ply material is urged into the groove during the cutting operation.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA

1974). In determining obviousness, the scope and content of the prior art are… determined; differences between the prior art and the claims at issue are… ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). "Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). "*Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.* Id. (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006))."

In the present case, the Examiner has not established a *prima facie* case of obviousness in rejecting the claims because neither Bell nor Hreha nor Miller nor Backlund nor their combination teaches or suggests all the claim limitations. With respect to amended claim 1, for example, neither Bell nor Hreha nor Miller nor Backlund nor their combination teaches or suggests "an inverted "T" shaped channel in the rigid base and coinciding with the cutting path", "a "T" shaped insert to mate with the channel", or "a groove disposed upon the surface and coinciding with the cutting path, the groove being formed in the insert prior to any cutting operation by the ultrasonic blade and having a curved profile corresponding to a tip portion of the cutting profile of the ultrasonic blade, the groove providing support for the backing of the backed ply material during the cutting operation, such that the backing of the backed ply material is urged into the groove during the cutting operation."

Bell is directed to an ultrasonic cutting system for cutting a stock material. The cutting system includes an anvil for supporting the stock material and an ultrasonic cutting tool for cutting the stock material. As shown in Figure 1 of Bell, during a cutting operation, the stock material is moved in a longitudinal direction indicated by arrow 14 in the Figure while a carriage assembly 3 that supports the ultrasonic cutting tool moves transversely across the anvil 7 to cut the stock material.

In finally rejecting original claim 1, the Examiner refers primarily to the embodiment illustrated in Figure 9 of Bell, which is reproduced below for the convenience of the Examiner:

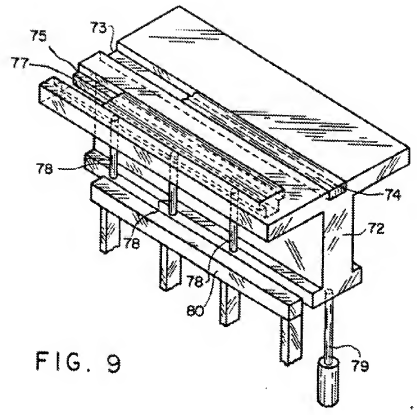

FIG. 9

Bell, Figure 9.

Bell, in Fig. 9, illustrates an anvil 72 having a LEXAN plastic strip 74 positioned within channel 73 extending along the cutting axis. The Examiner acknowledges, and Applicant agrees, that neither channel 73 nor insert 74 is "T-shaped". The Examiner, however, cites to Hreha as disclosing a T-shaped insert that mates with a T-shaped channel, and concludes that it would be obvious to modify the insert of Bell to be T-shaped. Applicant respectfully disagrees.

Hreha discloses a radial arm saw table top. The table top includes a plurality of T-shaped grooves for receiving T-shaped fences. The fences serve an entirely different function than the T-shaped insert of claim 1 and do not coincide with the cutting path as recited in claim 1. Therefore, it would not be obvious to one skilled in the art to modify the LEXAN plastic strip in Bell to be T-shaped in view of the teachings of Hreha.

In this regard also, it is to be noted that Bell illustrates a T-shaped stripper bar 77 in Fig. 9, and was thus aware of T-shaped components. Notwithstanding, plastic strip 74 (the actual function of which does not appear to be described anywhere in Bell) is in the shape of a

rectangular prism. Applicant respectfully submits that this fact further establishes that it would not have been obvious to modify strip 74 of Bell to be of a T-shape configuration.

Therefore, neither Bell nor Hreha nor their combination discloses or suggests "an inverted "T" shaped channel in the rigid base and coinciding with the cutting path" or "a "T" shaped insert to mate with the channel" as recited in claim 1, and claim 1 patentably distinguishes over the cited references for at least this reason.

In addition, the cited references do not disclose or suggest "a groove disposed upon the surface and coinciding with the cutting path, the groove being formed in the insert prior to any cutting operation by the ultrasonic blade and having a curved profile corresponding to a tip portion of the cutting profile of the ultrasonic blade, the groove providing support for the backing of the backed ply material during the cutting operation, such that the backing of the backed ply material is urged into the groove during the cutting operation" as now recited in claim 1.

In rejecting the claims, the Examiner contends that over a period of time, operation of the cutting system in Bell could be expected form a groove in plastic strip 74. Applicant respectfully disagrees that it can be assumed that a cutting operation in Bell will form a groove in strip 74. However, in order to expedite prosecution, claim 1 has also been amended to recite "the groove being formed in the anvil prior to any cutting operation by the ultrasonic cutting tool". As acknowledged by the Examiner during the interview, Bell does not disclose or suggest such a feature, and claim 1 is not obvious in view of the cited references for this reason as well.

Miller and Backlund are cited as disclosing deformable materials, and do not supply the above-described deficiencies in Bell and Hreha.

For at least all the above reasons, claim 1 is not obvious over Bell in view of Hreha, Miller and Backlund, and patentably distinguishes over the references in its present form.

Claims 6-8 depend from and further restrict claim 1, and also patentably distinguish over the cited art, at least by virtue of their dependency. Claim 5 has been canceled, and the rejection with respect to that claim is, accordingly, now moot.

Therefore, the rejection of claims 1 and 5-8 under 35 U.S.C. § 103 has been overcome.

III. 35 U.S.C. § 103, Obviousness

The Examiner has finally rejected claims 2 and 3 under 35 U.S.C. § 103 as being unpatentable over Bell, Hreha, Miller, Backlund, and Pilkington, U.S. Patent No. 4,920,495 (hereinafter "Pilkington"), Gerber et al., U.S. Patent No. 4,373,412 (hereinafter "Gerber"), and Greve, U.S. Patent No. 5,072,640 (hereinafter "Greve"). This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

> The modified device of Bell discloses the claimed invention except for the material of the anvil. It is first noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 41 6. As applicant claims that the anvil could be a metal, high pressure laminate, polymeric material, or a resin, apparently the material of the anvil is not very critical, in as long as the anvil structure is then capable of providing a solid, supporting surface to interact with the ultrasonic cutter. Furthermore, the use of strong, durable materials, such as metals, plastics, and laminates for anvils in combination with cutters, ultrasonic or otherwise, is old and well known in the art as supported by Backlund, Greve, Pilkington, and Gerber. One having ordinary skill in the art at the time of the invention would have been similarly motivated to have designed the Bell anvil to be comprised of a well known structurally supportive material, as the claimed materials were well known for use in the anvil art and the modification would have yielded nothing more than predictable results of a structurally supportive cutting surface.
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> In regards to claim 8, the modified device of Bell discloses wherein the anvil comprises a metal. (see Pilkington, steel table, 86; Gerber et al. cutting support surface, 80, comprised of either aluminum, other metals, fiberboard, hard plastic, synethic materials (col. 4, lines 15-20); Greve anvil, 52, plastic, metal, Polyethylene, or Delrin)
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> In regards to claim 9, the modified device of Bell discloses wherein the anvil comprises a high pressure laminate (see Greve anvil, 52, plastic, metal, Polyethylene, or Delrin(high pressure laminate) see col. 4, lines 4-9; col. 8, lines 46-49)
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> In regards to claim 10, the modified device of Bell discloses wherein the anvil comprises at least one of polymeric material and a resin (see Gerber et al. cutting support surface, 80, hard plastic (col. 4, lines 15-20); Greve anvil, 52, plastic, Polyethylene, or Delrin (see col. 4, lines 4-9; col. 8, lines 46-49).

Final Office Action dated June 22, 2009, pages 7-8.

Claims 2 and 3 depend from and further restrict claim 1. The secondary references to Pilkington, Gerber and Greve do not supply the deficiencies in the principal references as discussed in detail above with respect to claim 1. Claims 2 and 3, accordingly, patentably distinguish over the cited art, at least by virtue of their dependency.

Therefore, the rejection of claims 2 and 3 under 35 U.S.C. § 103 has been overcome.

IV. 35 U.S.C. § 103, Obviousness

The Examiner has finally rejected claim 4 under 35 U.S.C. § 103 as being unpatentable over Bell, Hreha, Miller, and Backlund. This rejection is respectfully traversed.

In rejecting the claim, the Examiner states:

> The modified device of Bell discloses the claimed invention except that surface comprises metal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the resilient Lexan plastic for another material such as metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Final Office Action dated June 22, 2009, pages 8-9.

Claim 4 has been canceled. Therefore, the rejection of claim 4 under 35 U.S.C. § 103 is now moot.

V. 35 U.S.C. § 103, Obviousness

The Examiner has finally rejected claims 6 and 9 under 35 U.S.C. § 103 as being unpatentable over Bell, Hreha, Miller, and Backlund. This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

> The modified device of Bell discloses the claimed invention except that insert (74) comprises a high pressure laminate or nylon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the resilient Lexan plastic for another material such as a HPL or nylon, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a

matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Final Office Action dated June 22, 2009, page 9.

Claims 6 and 9 depend from and further restrict claim 1. Claim 1 patentably distinguishes over Bell, Hreha, Miller and Backlund as discussed in detail above with respect to claim 1. Therefore, claims 6 and 9 also patentably distinguish over the references, at least by virtue of their dependency.

Therefore, the rejection of claims 6 and 9 under 35 U.S.C. § 103 has been overcome.

VI. Conclusion

It is respectfully urged that claims 1-3 and 6-9 patentably distinguish over the cited art and that this application is now in condition for allowance. It is, accordingly, respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: September 21, 2009

Respectfully submitted,

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